

Serial No. 09/655,402
Reply to Office Action of April 20, 2005

Docket No. K-0214

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A power control method in a multilayered communication system comprising:

determining if a mobile station is within a soft handoff region between a macrocell region and a picocell region; and

performing a power control such that a transmission power level of said mobile station is not lowered, if said mobile station is determined to be within said soft handoff region and if a soft handoff of said mobile station is required, wherein the transmission power level of said mobile station is not lowered during a transmission of an extended handoff direction message and a handoff complete message, wherein when a base station that provides service to said picocell determines a prescribed condition for the mobile station that allows reducing the transmission power level of the mobile station, the base station that provides service to said picocell performs power control to maintain or increase the transmission power level of said mobile station.

2-4. (Canceled)

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5. (Previously presented) The method of claim 1, wherein a base station which provides service to said picocell performs a power control to maintain the transmission power level of said mobile station.

6. (Previously presented) The method of claim 1, wherein a base station which provides service to said picocell performs a power control to increase the transmission power level of said mobile station.

7. (Previously presented) The method of claim 1, further comprising:
setting a reverse link coverage of said picocell greater than a forward link coverage of said picocell.

8. (Previously presented) The method of claim 7, further comprising:
controlling a level of transmission power of a base station which provides service to said picocell to set said forward link coverage relatively equal to a size of said picocell.

9. (Previously presented) The method of claim 8, wherein setting said reverse link coverage greater than said forward link coverage comprises not attenuating signal waves when received by a base station which provides service to said picocell.

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10. (Previously presented) The method of claim 7, wherein setting said reverse link coverage greater than said forward link coverage comprises not attenuating signal waves when received by a base station which provides service to said picocell.

11. (Previously presented) A power control method of a base station in a multilayered communication system comprising:

determining if a mobile station is within a soft handoff region between a macrocell region and a picocell region;

setting a reverse link coverage of said picocell greater than a forward link coverage of said picocell, if said mobile station is determined to be within said soft handoff region and if a soft handoff of said mobile station is required; and

performing a power control such that a transmission power level of said mobile station is not lowered during a transmission of an extended handoff direction message and a handoff complete message, if said mobile station is determined to be within said soft handoff region and if a soft handoff of said mobile station is required.

12. (Previously presented) The method of claim 11, wherein a base station which provides service to said picocell performs a power control to maintain the transmission power level of said mobile station.

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13. (Previously presented) The method of claim 12, further comprising:
controlling a level of transmission power of a base station which provides service to said picocell
to set said forward link coverage relatively equal to a size of said picocell.
14. (Previously presented) The method of claim 12, further comprising:
setting said reverse link coverage greater than said forward link coverage by not
attenuating signal waves when received by a base station which provides service to said picocell.
15. (Previously presented) The method of claim 11, wherein a base station which
provides service to said picocell performs a power control to increase the transmission power
level of said mobile station.
16. (Previously presented) The method of claim 15, further comprising:
controlling a level of transmission power of a base station which provides service to said picocell
to set said forward link coverage relatively equal to a size of said picocell.
17. (Previously presented) The method of claim 15, further comprising:
setting said reverse link coverage greater than said forward link coverage by not
attenuating signal waves when received by a base station which provides service to said picocell.

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18. (Previously presented) The method of claim 11, further comprising:
controlling a level of transmission power of a base station which provides service to said picocell to set said forward link coverage relatively equal to a size of said picocell.
19. (Previously presented) The method of claim 11, further comprising:
setting said reverse link coverage greater than said forward link coverage by not attenuating signal waves when received by a base station which provides service to said picocell.
20. (Previously presented) A power control method of a base station in a multilayered communication system comprising:
determining if a mobile station is within a soft handoff region between a macrocell region and a picocell region;
setting a reverse link coverage of said picocell greater than a forward link coverage of said picocell, if said mobile station is determined to be within said soft handoff region and if a soft handoff of said mobile station is required, wherein controlling a level of transmission power of a base station which provides service to said picocell to set said forward link coverage relatively equal to a size of said picocell and setting said reverse link coverage greater than said forward link coverage by not attenuating signal waves when received by said base station; and

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performing a power control at said base station, if said mobile station is determined to be within said soft handoff region and if a soft handoff of said mobile station is required, wherein said base station either maintains the transmission power level of said mobile station or increases the transmission power level of said mobile station.

21. Canceled

22. (Currently Amended) The method of claim 21, wherein the prescribed condition is a signal-to-noise ratio greater than a predetermined value.

23. (Previously presented) The method of claim 11, wherein when a base station that provides service to said picocell determines a prescribed condition for the mobile station that allows reducing the transmission power level of the mobile station, the base station that provides service to said picocell performs power control to maintain or increase the transmission power level of said mobile station.

24. (Previously presented) The method of claim 23, wherein the prescribed condition is a signal-to-noise ratio greater than a predetermined value.